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“Unrecorded” genera of Rafinesque—I. Autikon Botanikon (1840)

FRANCIS W. PENNELL

Botanists have come to rely so fully on the thoroughness of the vast compilation of plant-names brought together in the *Index Kewensis*, that it is, to say the least, disconcerting to learn of names not recorded there. The libraries of England and the Continent fortunately, and naturally, contain the original descriptions of nearly all species ever published. Yet remarkable as was the diligence with which accessible volumes and journals were searched, it cannot be surprising to discover that some works, and particularly those produced elsewhere and but little welcomed in their time, were missed. Such were the works of Constantine Samuel Rafinesque, especially those written during the later lonely fruitful years of his life at Philadelphia.

Rafinesque had a varied scientific career, for some years in Sicily, but for most of his working life in the United States, as it was understood between 1802 and 1840, the year of his death. None of the early students of the American flora made more prolific contributions to our taxonomic knowledge, and no other was so vigorously original. The present-day student must appreciate the keenness of Rafinesque's judgments, no matter how much he may deplore the undisciplined enthusiasm with which were presented too slightly weighed conclusions, nor can we fail to do honor to the zeal which led this “improver” to the production at his own expense, or rather at his own continuous loss, of volume after volume giving a sustained presentment of his views on the nomenclature, taxonomy and evolution of plants, American and foreign.

Many of Rafinesque's botanical papers between 1815, the date of his permanent settlement in America, and 1836 are short and published in little-known magazines. His more pretentious works of this period, *Florula Ludoviciana*, 1817, and *Medical Flora*, 1828–30, are well indexed by the Kew bibliographers. But the papers in the *American Monthly Magazine* were not all seen by

them, and contain descriptions which are still practically unknown. During these years, as claimed by Rafinesque, a number of pamphlets were "published," but whether certain at Lexington, Kentucky, if actually issued, have survived in even a single copy is doubtful. It would have been more logical to have commenced a search for the unrecorded genera of Rafinesque with these earlier works, but the difficulty of the task has made me postpone such a paper.

In 1836 commenced the great period of Rafinesque's production. Then in a series of projects, each curtailed in execution, he tried to place before an unresponsive world his views. Many thought him "crazy," but who to-day can read such expressions as those presented in the letter to Dr. Torrey preserved in the *Herbarium Rafinesquianum* (p. 11-12) or the expositions in the introductions to the *New Flora of America* and the *Flora Telluriana*, and not consider that here was one of the truly striking forerunners of the Evolutionary Movement? His *New Flora of North America* and *Flora Telluriana*, his greatest works, are well indexed by the Kew compilers, so that later scientists have little excuse for the neglect with which these are treated. But the work which succeeded these, upon which he was writing at the time of his death, and which, while pretending to be but a catalog of specimens for sale, is actually a study abounding with generic and specific descriptions, the *Autikon Botanikon*, is never cited in the Kew Index. The total disregard given it by its contemporaries is well illustrated by the fact that in his obituary account of Rafinesque in the *American Journal of Science and Arts* (40: 221-241. 1841). Professor Asa Gray seems not to have been aware of its existence.

Posterity is better able to do justice to Rafinesque than were those of his own time, for now we have the sum of his works before us, and the science of the present day enables us to be certain of the identity of much that was sketchily or partially described therein. By any code of nomenclature his names must be accounted for, and until those conversant with our eastern flora patiently analyze the hundreds of descriptions he has left, there will always be the possible threat of changes in our current specific or generic names. The day is over-due for such an analysis and the writer would tell any doubter that, from his own experience

identifying Rafinesque's species of Scrophulariaceae, if you know your species by other as well as by the traditional criteria, the task is not hopeless. Rafinesque had a sanguine, and sadly not unique, faith that all specimens (and likewise all descriptions) which seemed in any way "different" represented distinct species! Also his confidence in his own "natural" classification so often led him astray with respect to affinities that we are many times left blind. It is a tragedy that Rafinesque's herbarium has not survived.

As a first step toward an appraisal of Rafinesque, I should like to have collected the species unrecorded in the Index Kewensis, but such a list with comments would be too long for presentment in this journal. More importance attaches to the knowledge that unused generic names exist. This paper is the first of several in which I shall attempt to record briefly the unrecorded genera of Rafinesque, upon what they are based, and whether the names are available for use. No responsibility is assumed for the identification of any of these and the describer's own statement of their affinity is given for the purpose of enabling any worker to know if a certain genus is, or is not, of the group of his own special interest.

The Autikon Botanikon doubtless contains the majority of Rafinesque's unrecorded names, inasmuch as it is his only large work overlooked. In it all the new genera are described so that the validity of their publication must be recognized by all. Consequently it is important to have these presented. The following list retains the numbers of Rafinesque's series, while for those who may cite these genera from my list I include in parentheses the pages of the original.

15. JUNIA Raf. (p. 6). Type species, *J. triflora* Raf. "Received from Florida, but whether Floridan, Antillan or African I am not sure." Said to be near *Clethra* and *Cyrtilla*. Name antedated by *Junia* Adans., 1763.

33. RONCONIA Raf. (p. 9). Type species, *R. triflora* Raf. "(*Ammania auriculata* nonnullis). . . . Egypt." Segregate from *Ammania* L.

60. IONDRA Raf. (p. 11). Type species, *Thlaspi arabica* "L.," actually (L.) Vahl, *Symb. Bot.* 2: 76. 1791, based upon *Iberis arabica* L., *Cent. Pl.*, 1: 17. 1755. *Iondra arabica* (L.) Raf. This is considered to be a species of *Aethionema* R. Br., 1812.

63. CARGILA Raf. (p. 11). Type species, *C. dichotoma* Raf. "South America." Near *Melampodium*. Name antedated by *Cargilla* Adans., 1763.

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85. TRIMISTA Raf. (p. 12). Type species, *T. levigata* Raf. "Central America. . . One of the plants blended in *Nyctago jalapa*."
88. PLETHYRSIS Raf. (p. 13). Type species, *P. glauca* Raf. "Unaka or Iron Mts. of Carolina." Near *Hedyotis*.
89. ANISTELMA Raf. (p. 69). Name substituted for *Stelmanis* Raf. (p. 13), typified by *Oldenlandia glomerata* Michx., Fl. Bor. Am. 1: 83. 1803, of Carolina. Not *Stelmanis* Raf., Fl. Tellur. 2: 47. 1837.
96. MARZARIA Raf. (p. 14). Type species, *Bocconia cordata* Willd., Sp. Pl. 2: 841. 1799, of China (?). *Marzaria cordata* (Willd.) Raf. This name is antedated by *Macleaya* R. Br., 1826.
101. LEVANA Raf. (p. 15). Type species, *L. uniflora* Raf. (= *Vestia lycioides* Willd.) "African." Specimen received by Rafinesque under names "*Vestia lycioides*," and "*Blairia pentandra*," but "it is certainly not a *Blairia*!" and "I don't know who established *Vestia*." Plant evidently *Vestia lycioides* Willd., Enum. Hort. Berol. 208. 1809, from Chile.
120. SHORTIA Raf. (p. 16). Type species, *Arabis dentata* "Nutt.," actually (Torr.) T. & G., Fl. N. Am. 1: 80. 1838, of Kentucky. *Shortia dentata* (Torr.) Raf. This name antedates the well-known genus *Shortia* T. & G., 1842.
121. SEMETUM Raf. (p. 17). Type species, *S. ramosum* Raf. "Florida." Near *Lepidium*.
167. ACTARTIFE Raf. (p. 20). Type species, *A. cuneifolia* Raf. "Florida, found by Baldwin, deemed *B[oltonia] asteroides*." Near *Boltonia*.
201. EVACTOMA Raf. (p. 23). Type species, *Cucubalus stellatus* [L., Sp. Pl. 414. 1753, of Virginia]. *Evactoma stellata* (L.) Raf.
207. XAMILENIS Raf. (p. 24). Type species, *Silene acaulis* L. [Sp. Pl. ed. II. 603. 1762, of Europe].
208. PLECONAX Raf. (p. 24). Type species, *Silene conica* L. [Sp. Pl. 418. 1753, of Europe].
209. ALIFIOLA Raf. (p. 24). Type species, *A. dichotoma* Raf. "In Kentucky, disc. 1818." Near *Silene*.
211. IXOCA Raf. (p. 25). Type species, *I. tenella* Raf. (= "*Silene 4 dentata* L."). "*Silene quadridentata* L.," of the Alps, is evidently intended to be *Cucubalus quadrifidus* L., Sp. Pl. 415. 1753, later called *Silene quadrifida* (L.) L., Syst. Nat. ed. X. 1032. 1762, and *Lychnis quadridentata* Murr., Syst. Nat. ed. XIII. 362. 1774.
233. EXEMIX Raf. (p. 27). Type species, *Lychnis grandiflora* Jacq. [Coll. 1: 140. 1786]. *Exemix grandiflora* (Jacq.) Raf.
241. EBRAXIS Raf. (p. 29). Type species, *Silene antirrhina* L. [Sp. Pl. 419. 1753, of Virginia].
250. IDANTHISA Raf. (p. 31). Type species, *I. ligustrina* Raf. "Probably of E. Indies." Near *Justicia*.
251. RODATIA Raf. (p. 31). Type species, *R. reticulata* Raf. "South America." Sent to Rafinesque as "*Justicia formosa*."
275. DIPLANDRA Raf. (p. 35). Type species, *Ludwigia decurrens* Walt. [Fl. Carol. 89. 1788, of Carolina.] *Diplandra decurrens* (Walt.) Raf. Name antedated by *Diplandra* Bert., 1830, and *Diplandra* Hook. & Arn., 1837.

281. ADENOLA Raf. (p. 36). Type species, *Jussieua grandiflora* Michx. [Fl. Bor. Am. 1: 267. 1803, of Georgia]. *Adenola grandiflora* (Michx.) Raf.
336. BAZINA Raf. (p. 44). Type species, *B. nudiflora* Raf. of Florida (= *Lindernia grandiflora* Nutt.).
365. MERLETA Raf. (p. 49). Type species, *M. microphyla* Raf., of Cuba. Near *Croton*.
366. VANDERA Raf. (p. 49). Type species, *V. discolor* (Jal.) Raf., of Cuba. "Croton do Jal. mpt."
367. ALDINIA Raf. (p. 50). Type species, *A. glechomoides* Raf., of Cuba, "Jalambic". Near *Croton*.
368. BANALIA Raf. (p. 50). Type species, *B. muricata* Raf., of Florida. Near *Croton*. This name antedates *Banalia* Moq., 1849.
369. PLEOPADIUM Raf. (p. 50). Type species, *P. ciliatum* Raf., of South America. Near *Croton*.
372. ALLOSANDRA Raf. (p. 51). Type species, *A. verbenifolia* Raf., of Florida. Near *Tragia*.
388. DIPLEINA Raf. (p. 54). Type species, *D. umbellata* Raf., of Siberia. Near *Actaea*.
401. REGGERIA Raf. (p. 55). Type species, *Ornithogalum bohemicum* Willd., Sp. Pl. 2: 113. 1799, which is there cited to Zauschner, Act. Bohem. 2: 121.] *Reggeria bohémica* (Willd.) Raf.
412. GENLISA Raf. (p. 57). Type species, *Scilla bifolia* L. [Sp. Pl. 309. 1753, of Europe.] Name antedated by *Genlisia* Reichenb., 1828, and *Genlisea* A. St. Hil., 1833. *Genlisa bifolia* (L.) Raf.
454. LURONIUM Raf. (p. 63). Type species, *Alisma natans* L. [Sp. Pl. 343. 1753, of Europe.] *Luronium natans* (L.) Raf. This name antedates the genus-name *Elisma* Buchen., 1869, based upon the same species.
487. CODOMALE Raf. (p. 67). Type species, *C. purpurascens* Raf., of Siberia. Near *Convallaria*.
488. TROXILANTHES Raf. (p. 67). Type species, *T. angustifolia* Raf., of Europe. Near *Convallaria*.
501. LOMAKE Raf. (p. 73). Type species, *L. brachiata* Raf., of Cuba. Near *Stachytarpheta*.
507. STREBLINA Raf. (p. 74). Type species, *S. denticulata* Raf., of Florida. Near *Nyssa*.
510. TATINA Raf. (p. 75). Type species, *T. parviflora* Raf., of Mississippi. Near *Bumelia*.
538. KONXIKAS Raf. (p. 78). Type species, *K. acuminatum* Raf., of Siberia (?). Near *Lathyrus* and *Clitoria*.
562. MONOSEMEION Raf. (p. 82). Type species, *M. obliquatum* Raf., of North America (?). Near *Amorpha*.
571. FESTANIA Raf. (p. 84). Type species, *F. nivea* (Collins) Raf., of Africa. "(Rhus do. Coll[ins] herb.)" Near *Rhus*.
601. SALIUNCA Raf. (p. 87). Type species, *S. plantaginea* Raf., of Europe. Near *Fedia*.

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610. FUISA (p. 88). Type species, *Valeriana rupestris* Pallas, Reise 3: 266. *Fuisa rupestris* (Pallas) Raf.

613. RITTERA Raf. (p. 88). Type species, *Valeriana calcitrapa* [L., Sp. Pl. 31. 1753, of Europe]. *Rittera calcitrapa* (L.) Raf. Name antedated by *Rittera* Schreb., 1789.

613. MONASTES Raf. (p. 88). Alternative name for *Rittera* Raf.

664. KOBIOSIS Raf. (p. 94). Type species, *Euphorbia mellifera* [Ait., Hort. Kew. 3: 493. 1789, of Madeira]. *Kobiosis mellifera* (Ait.) Raf.

681. DEMATRA Raf. (p. 96). Type species, *D. sericea* Raf., of Palestine (= *Euphorbia villosa* Sieber, non Waldstein).

718. BRAXILIA Raf. (p. 102). Type species, *B. parvifolia* Raf., of Labrador and northern Europe (= *Pyrola minor* L.). This name antedates *Erxlebenia* Opiz, 1852.

723. ORTHILIA Raf. (p. 103). Type species, *O. parvifolia* Raf., of Europe (= *Pyrola secunda* L.). This name antedates *Ramischia* Opiz, 1852.

726. ODOTIMA Raf. (p. 104). Type species, *Pyrola uniflora* L. [Sp. Pl. 397. 1753, of Europe]. Name antedated by *Moneses* Salisb., 1821.

763. PARMENTIERA Raf. (p. 108). Type species, *P. edulis* Raf., of Peru (= *Solanum tuberosum* O[mnes]). A pre-Linnean and horticultural name for the potato. Its publication here was antedated by *Parmentiera* DC., 1838.

763. ARTORHIZA Raf. (p. 138). Alternative name for *Parmentiera* Raf.

765. ANTIMION Raf. (p. 109). Type species, *A. tomentosum* Raf., of Peru. Near *Solanum*.

766. SCUBULON Raf. (p. 109). Type species, *S. incanum* Raf., of Peru. Near *Solanum*.

835. EUHEMUS Raf. (p. 115). Type species, *E. officinalis* Raf., from "Canada to Louisiana" (= *Lycopus virginicus* L.).

851. ATIRBESIA Raf. (p. 117). Type species, *Marrubium peregrinum* L. [Sp. Pl. 582. 1753, of Europe].

887. PERXO Raf. (p. 121). Type species, *Ocimum polystachyon* "Mur.," actually L., Mant. 567. 1771, of India. *Perxo polystachya* (L.) Raf.

900. FENIXANTHES Raf. (p. 122). Type species, *Salvia splendens* "Hortis," actually Ker-Gawl in Bot. Reg. 687. 1823. *Fenixanthes splendens* (Ker-Gawl) Raf.

916. PELOTRIS Raf. (p. 125). Type species, *Hyacinthus paniculatus* [Lam., Encyc. 3: 193. 1789, of Europe]. *Pelotris paniculatus* (Lam.) Raf.

946. ANIKETON Raf. (p. 130). Type species, *A. coriaceum* Raf., of Cuba. Near *Smilax*.

952. DILAX Raf. (p. 131). Type species, *D. muricata* Raf., of Florida. Near *Smilax*.

996. ATEVALA Raf. (p. 136). Type species, *A imbricata* Raf., of Africa. Near *Aloe*.

998. KUMARIA Raf. (p. 137). Type species, *K. spicata* Raf., of Africa (= *Aloe retusa* L.). Name antedated by *Kumara* Medic., 1786.

1000. TULISTA Raf. (p. 137). Type species, *Aloe margaritifera* [Burm. f., Fl. Cap. Prod. 10. 1768, of South Africa]. *Tulista margaritifera* (Burm. f.) Raf.

1001. ICMANE Raf. (p. 141). Type species, *I. nerifolia* Raf., of Australia. Near *Hakea*.
1052. NEMELAIA Raf. (p. 144). Type species, *N. laurina* Raf., of Europe (?). Probably of Myrsinaceae.
1063. TARTONIA Raf. (p. 146). Type species, *T. obovata* Raf., of Europe (= *Daphne Tartonraira* L.).
1074. OZANDRA Raf. (p. 148). Type species, *Melaleuca "hyssopifolia* Sm.," evidently *M. hypericifolia* Sm., Trans. Linn. Soc. 3: 279. 1797, of Australia.
1102. NEVROLIS Raf. (p. 150). Type species, *N. fuscata* Raf., of Borneo or Moluccas (= *Celosia virgata* "Hortis").
1102. LEPIPHAIA Raf. (p. 199). New name for *Nevrolis* Raf., considered too similar to *Nevrilis* Raf., Sylva Tellur., 138. 1838.
1158. TURSITIS Raf. (p. 156). New name for *Elatine* Moench, 1794, not *Elatine* L., 1753. *Tursilis Elatine* (L.) Raf. Name antedated by *Kickxia* Dumort., 1827.
1165. PROBATEA Raf. (p. 157). New name for *Asarina* Moench.
1167. MISOPATES Raf. (p. 158). Type species, *Antirrhinum Orontium* L. [Sp. Pl. 617. 1753, of Europe]. *Misopates Orontium* (L.) Raf.
1168. TERMONTIS Raf. (p. 158). Type species, *T. racemosa* Raf. of Europe (= *Antirrhinum majus* L.). Not *Termontis* Raf., Chl. Actn. 5. 1813.
1171. BUCRANION Raf. (p. 159). Type species, *B. spicatum* Raf., of Africa (?). Near *Antirrhinum*.
1172. ANTRIZON Raf. (p. 159). Type species, *A. tenuifolium* Raf., of Siberia (?). Near *Antirrhinum*.
1227. DASIPHORA Raf. (p. 167). Type species, *D. riparia* Raf., of Eurasia (= *Potentilla fruticosa* L.).
1269. STREPTILON Raf. (p. 173). Type species, *S. odoratum* Raf., of Europe (= *Geum urbanum* L.).
1379. ZELIAUROS Raf. (p. 184). Type species, *Z. repens* Raf., of "Spain or Maroco?" Near *Veronica*.
1400. IPOSUES Raf. (p. 186). Type species, *I. obovata* Raf., of Asia. Near *Erica* or *Menziesia*.
1401. SMIDETIA Raf. (p. 187). New name for *Schmidtia* Tratt. ("*Schmiedtia* Tratenick").
1402. RHIZAKENIA Raf. (p. 188). Type species, *R. ovata* Raf., from "New England to Florida." Near *Pilularia*, *Isoetes*, etc.

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